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of solids, but the diffusion of liquids has been thoroughly studied. It is evident that the volatility of a liquid may be expressed by the weight of the liquid that evaporates per second from a square millimeter of surface, at a given temperature. This weight is proportional to the excess of the maximum tension of the vapor at that temperature over the tension that the vapor possesses in the air, and furthermore this weight varies in inverse ratio to the pressure of the air, there being a special factor for each liquid. On this account evaporation is of value in the determination of the purity of a liquid. The *pèse-vapeur* described by the author is really a small hydrometer, floating in alcohol. At the upper end of this instrument is a cup into which the volatile liquid is poured. This cup slides up and down in front of a graduated scale. As the liquid evaporates, of course the instrument floats considerably higher after some time. Ether is taken as a standard of comparison. The laws that govern evaporation, when the surface is not exposed freely to evaporation, as when it is covered with some non-absorbing membrane, are of special interest and have been the subject of a series of experiments by the author and M. Gustave Robin. The instrument called an *olfactometer* gives what may be called the measure of the intensity of a perfume, as it is designed to determine the weight of the vapor that must be evaporated and must find its way into the nasal passages, before the operator can perceive the odor. Indeed, it is proposed to use it to estimate the comparative value of different perfumes.

The olfactometer consists of a glass cylinder supporting, by a cork in its upper end, two tubes sliding the one within the other, the outer tube being of paper and the inner of glass graduated in millimeters, and projecting above the apparatus, where it terminates in a forked tube carrying a glass stop-cock. The forked tube is introduced into the nostrils during the experiment, and a small quantity of any odorous substance is placed in the outer cylinder by a pipette, through the opening that is provided for that purpose. The operator then notes the time, inspires the air regularly, and slowly raises the tube. He notes the time when he first perceives the odor, which has penetrated through the paper, and reads the mark on the graduated tube.

By filling the tube with carbonic acid gas it is possible to determine the proportion of the volume of gas absorbed at each inspiration to the total volume of the tube. By means of a pneumograph it is possible to obtain a record of the inspirations and thus what may be called the coefficient of inspiration. The record is made upon the blackened surface of a paper attached to a cylinder, which slowly revolves. An interesting series of cuts is given to illustrate the effect of inspiration of different odors.

The gustatory organs of Belidens Ariel, Frederick Tuckerman, M. D.—*Journal of Anatomy and Physiology*, Vol. XXVI. p. 85.

The author describes in detail the circumvallate papilla, with the taste-bulbs, also the gustatory ridges and the fungiform papillæ. In regard to the gustatory ridges of this animal it may be noticed that there are structural characters common to both the circumvallate type of taste-area and the bulb-bearing ridges of *Ornithorynchus*. The ridges of *Belidens* furnish an intermediate stage in the process of development of the former from the latter; the more recent from the more primitive type of the taste-area. Hence an important link in the history of this development is supplied, and now that two types are found together, it is possible that further investigation will reveal the foliate type in its simplest form co-exerting with them.